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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/206,329	12/08/98	ZHANG G	970663.ORI

QM12/1027
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EXAMINER	
EVANISKO,G	
ART UNIT	PAPER NUMBER
3762	11

DATE MAILED: 10/27/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/206,329	Zhang et al
Examiner	**Group Art Unit**
George Evanisko	3762

☒ Responsive to communication(s) filed on *Sep 18, 1900* .

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-36* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-36* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "having a reduced coupling capacitance" is a relative term and is vague. There is no reference to compare the coupling capacitance with so that it can be "reduced". Is the reference 1uF, 1F, etc.?

In claim 19, "coupling capacitors having a combined reduced capacitance" is a relative term, vague, and not supported by structure. The use of "reduced capacitance" is a relative term. In addition, the capacitors have not been set forth to be coupled or combined together to operate in the system. It is suggested to use something similar to "coupling capacitors coupled together to produce a capacitance lower than the capacitance of each capacitor alone that together attenuate..."

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
>
> (f) he did not himself invent the subject matter sought to be patented.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 2, 4, 11, 12, 14, 15, 19, 20, 22, 29, 30, 32, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Silvian (4991583). For claim 19, the use of "capacitors having a combined reduced capacitance" is a broad and relative term that does not have to mean the capacitors are physically "connected" but could mean that they act simultaneously, or in harmony, or that they are both used for afterpotential reduction. The system of Silvian shows the use of both capacitors C2 and both capacitors C5 "that together" perform afterpotential reduction and Silvian describes the use of both capacitors together in Column 8, lines 1-2.

6. Claims 1, 2, 4, and 8-15, 19, 20, 22, and 26-33 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Silvian.

For claims 8-10, 13, 26-28 and 31, Figure 4 of Silvian shows the claimed sensing means as the "ECG amplifier" capable of sensing the evoked response using any electrode configuration.

In the alternative, for claims 8-10, 13, 26-28 and 31, Silvian discloses the claimed invention except for sensing the evoked response between a ventricular and an atrial electrode (tip or ring). It would have been obvious to one having ordinary skill in the art at the time the invention was made to sense evoked responses between a ventricular electrode and an atrial electrode since it was known in the art that sensing between a ventricular electrode to an atrial electrode is used to sense evoked responses in the heart and for detecting arrhythmias, conduction times, and heart beats.

7. Claims 1-4, 6, 11, 15, 19-22, 24, 29, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Haefner et al (5690683). Haefner meets the limitations of the relative term "reduced capacitance".

8. Claims 1, 2, 16-20, and 34-36 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Zhu et al (5843136) or Zhu et al (6044296).

9. Claims 1, 2, 16-20 and 34-36 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. The subject matter in the application is the same subject matter in the Zhu et al patent (5843136) or the Zhu et al patent (6044296), but the inventive entity is different.

10. Claims 3, 5-7, 21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silvian.

Silvian discloses the claimed invention except for sensing the evoked response between an atrial or ventricular electrode (tip or ring) to an indifferent electrode positioned on a can of the pacer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to sense between an atrial or ventricular electrode to an indifferent electrode positioned on a can of the pacer (instead of the case of the pacer) since it was known in the art that sensing between an atrial or ventricular electrode to an indifferent electrode positioned on a can of the pacer is used to provide unipolar sensing of evoked responses of the heart and is used for detection of particular heart conditions of a patient.

11. Claims 3-15 and 21-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Zhu et al.

Zhu et al discloses the claimed invention except for the unipolar or bipolar sensing between atrial electrodes, ventricular electrodes, and case/can electrodes. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have unipolar or bipolar sensing between atrial electrodes, ventricular electrodes, and case/can electrodes since it was known in the art that unipolar or bipolar sensing between atrial electrodes, ventricular electrodes, and case/can electrodes is used in pacers to sense heart activity and the particular configuration is chosen depending on implantation and sensing of particular heart conditions.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 5843136 or over claims 1-9

over U.S. Patent No. 6044296. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a unipolar or bipolar sensing system in the pacing system to sense, by unipolar or bipolar sensing, evoked responses from the heart using a combination of atrial electrodes, ventricular electrodes or can/case electrodes.

Response to Arguments

14. Applicant's remarks filed 9/18/00 have been fully considered but they are not persuasive.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Evanisko whose telephone number is (703) 308-2612.

GRE

October 24, 2000

George R. Evanisko
Patent Examiner

10/24/00